DOCUMENT RESUME

ED 319 861 UD 027 474

AUTHOR	Vroman, Wayne
TITLE	Industrial Change and Black Men's Relative Earnings: Final Report.
INSTITUTION	Urban Inst., Washington, D.C.
SPONS AGENCY	Ford Foundation, New York, N.Y.
PUB DATE	Jul 89
NOTE	54p.
AVAILABLE FROM	Urban Institute, 2100 M Street, NW, Washington, DC 20037.
PUB TYPE	Reports - Research/Technical (143)
EDRS PRICE	MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS	*Black Employment; Blacks; *Business Cycles; Differences; Economic Research; *Employment Opportunities; *Males; *Regional Characteristics; *Salary Wage Differentials; Wages; Whites

ABSTRACT

This study examines the relative earnings of black men from a time series perspective covering 1930 to 1990. Regression analyses were fitted to annual data to isolate factors responsible for changes in relative earnings. National and regional data on population growth and employment growth by industry were analyzed to determine the degree of spatial mismatch between jobs and workers. The following main conclusions are reported: (1) little evidence was found of a largescale upward trend in relative earnings operating over the entire period from the early 1950s through 1987; (2) relative earnings gains since the early 1950s occurred largely in one period, between the mid-1960s and the mid-1970s; (3) unlike many earlier studies that found positive effects from the unemployment rate or deviations from the level of resource utilization on relative earnings, this analysis did not find significant effects from the unemployment rate or deviations of actual output from full employment output; and (4) there was significant evidence that accelerated declines since 1969 in the share of jobs located in seven large northern states and in heavy industries have acted to reduce black men's relative earnings by as much as 18 percent in 1986 and 1987, with average overall losses of nine percent or less. A list of 18 references and statistical data on three graphs and nine tables are appended. (FMW)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

CHANGING DOMESTIC PRIORITIES
ED319861

DISCUSSION PAPER

INDUSTRIAL CHANGE AND BLACK MEN'S RELATIVE EARNINGS: Final Report

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☐ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL IN MICROFICHE ONLY HAS BEEN GRANTED BY
Anne Friedman
Urban Institute
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

UD 027 474

BEST COPY AVAILABLE

INDUSTRIAL CHANGE AND BLACK MEN'S RELATIVE EARNINGS: Final Report

by
Wayne Vroman

July 1989

* Senior Research Associate, the Urban Institute. Financial suport for this research was provided by a grant from the Ford Foundation. Views expressed in the paper are those of the author and not necessarily the views of the Urban Institute or its sponsors.

Outline

Page

Introduction.....1

Population Growth by Race and Region, 1930 to 1990.....2

Relative Earnings by Industry and Region.....6

Employment Growth by Region and Industry.....17

Time Series Analysis of Relative Earnings.....23

References.....36

Introduction

Indicators of annual earnings, unemployment rates and labor force participation rates suggest that relative economic progress for black workers has been negligible since the mid 1970s. Annual estimates of earnings from the Census Bureau's Current Population Survey (CPS), for example, show that black men's relative earnings in 1987 were no higher than in 1975. At least one analysis (Freeman and Bound (1989)) concluded there has been a deterioration in the relative position of black male cohorts since the mid 1970s.

The present paper examines the relative earnings of black men from a time series perspective. Regressions are fitted to annual data to isolate factors responsible for changes in relative earnings. The principle hypothesis to be tested is that changes in the regional and industrial mix of job opportunities since the late 1960s have had an adverse impact on black men's relative earnings. Some support for the hypothesis is found.

The specification used in the regression analysis draws generally upon the idea that a spatial mismatch between jobs and workers may affect relative earnings. The particular type of mismatch under consideration, however, involves large geographic areas, not different parts of given metropolitan areas. Early sections of the paper summarize national and regional data on population growth and employment growth by industry. These provide important background materials that are then used in the subsequent analysis of relative earnings behavior.

The analysis of black men's relative earnings reaches four main conclusions. (1) Little evidence was found of a large scale upward trend in relative earnings that operated over the entire period from the early 1950s through 1987. (2) Relative earnings gains since the early 1950s occurred largely in one period, between the mid 1960s and the mid 1970s. The timing of the gains suggests that EEO activities may have been responsible for much of the improvement of this period. (3) Unlike many earlier studies which found positive effects from the level of resource utilization on relative earnings, this analysis did not find significant effects from the unemployment rate or deviations of actual output from full employment output. (4) There was evidence that accelerated declines since 1969 in the shares of jobs located in seven large northern states and in heavy industries have acted to reduce black men's relative earnings. The strength of the statistical evidence was not as strong as anticipated when this research was originally undertaken. Nevertheless, the accelerated loss of jobs in northern states and in basic industries is estimated to have reduced black men's relative earnings by from 1 to 18 percent in 1986 and 1987 with most of the estimates suggesting relative earnings losses of 9 percent or less.

Population Growth By Race and Region, 1930 to 1990

Summary data on population growth by race and region are displayed in Table 1. The data from 1930 to 1980 are from decennial censuses while the 1990 data are projections made in early 1988 by the Census Bureau. Overall population growth by decade ranged from a low of 7.2 percent in the 1930s to a

high of 18.5 percent in the 1950s. Since the 1950s growth rates have slowed reaching 10.2 percent in the present decade.

In the regional data there are several patterns of importance. Rapid growth in the West occurred in each decade with its rate being about twice the national average in most periods, but three times the national average in the 1940s. From the 1930s through the 1960s growth rates in the North East and Midwest were below average, but ranged from 56 percent to 87 percent of the national average. In the 1970s and 1980s, however, very little population growth has taken place in either region. The table shows that the North East added only 1.6 million persons between 1970 and 1990 while the Midwest added only 3.3 million. Thus, while the total population increased by 47.0 million after 197[illegible] these two regions added only 4.9 million persons or 10.4 percent of the increase. The population growth of the South which roughly equaled the national average from the 1930s to the 1960s has been considerably above the national average in the 1970s and 1980s. Because the West and South have both been growing relatively rapidly in the last two decades their combined share of the total population increased from 48 percent in 1970 to 56 percent in 1990. In the four earlier decades covered by Table 1 and their combined share increased by a slightly smaller percentage (from 41 percent in 1930 to 48 percent in 1970).

Black population trends over these six decades present several contrasts to the overall trends. Black population growth by decade has a time profile similar to overall population growth, but at a higher level and showing less deceleration after the 1950s. The ratio of total population growth in the 1980s to growth in the 1950s is .55 (10.2/18.5), but for the black population

BEST COPY AVAILABLE

it is .67 (17.1/25.4). Because the black population growth slowdown has been smaller than average the black share of the total population which was 9.9 percent in 1950 will reach 12.4 percent in 1990.

When black population growth by region is examined the most rapid growth is observed in the West in all decades covered by Table 1. Due to the substantial migration out of the South, black population growth in that region was below the national average in the decades before 1970, particularly during the 1940s, 1950s and 1960s. This net movement which had been taking place in all periods since the Civil War was also of importance in earlier decades of the present century. The black population outside the South grew by 40 percent or more in five separate decades of the twentieth century (1910s - 43.9 percent, 1920s - 63.1 percent, 1940s - 62.8 percent, 1950s - 56.8 percent and 1960s - 40.4 percent).

A major change in black regional population growth has taken place in the 1970s and 1980s. Population growth in the South over the past two decades has equaled the national average while growth in the North East and Midwest has slowed. As a consequence, the share of the black population residing in the South has held steady at about 53 percent since 1970. Over the preceding three decades the share in the South declined by 24 percentage points (down from 77 percent in 1940).

Because so few blacks resided outside the South prior to 1940, the rapid rates of black population growth in the other regions caused the black population shares to increase only modestly in each decade. Note, for example, that in the North East the black population share rose from 3.8 percent in 1940 to 5.1 percent in 1950 even though the black population in the region grew by

47.3 percent over the decade. Also, despite the decades of rapid growth in the West the black population share since 1960 has been only about half of what it has been in the North East and Midwest. Over the past two decades the black population share has continued to increase in the North East and Midwest as the white population has grown only modestly while the black population has continued to grow from 12 to 18 percent per decade. The cumulative effect of above-average black population growth in the North East and Midwest has caused the black population shares in these regions to approach the national average (11.3 percent and 10.0 percent respectively in 1990 versus the projected U.S. average of 12.4 percent).

Additional details on black population growth from 1940 to 1990 are provided in Table 2 which shows the black population as a percent of the total population nationally, by region and for thirty-two individual states. All southern states are included in the table along with fifteen non-southern states that have measurable black population shares. Black population shares (percentages) have trended downward in nearly all southern states except for Delaware, Maryland and the District of Columbia. Note also the major decline in Florida (from 27.1 percent in 1940 to 14.2 percent in 1990) and the modest decline in Texas (from 14.1 percent in 1940 to 11.9 percent in 1990). The high long run rates of economic growth and population growth of these two largest southern states have not been accompanied by large scale in-migrations of blacks. Overall, the black population share in the South declined by 5 percentage points (from 23.8 percent in 1940 to 18.8 percent in 1990) with the most rapid decline occurring between 1940 and 1950 and practically no change occurring after 1970.

The increase in the non-southern black population has been large (as shown in Table 1) but it has been heavily concentrated in a small number of states. For all states outside the South Table 2 shows that the average black population share grew from 3.3 percent in 1940 to reach 9.0 percent in 1990. Among the thirty-four non-southern states, however, only seven have had black population shares consistently higher than the non-southern average. In each year from 1940 to 1990 above-average percentages are observed in New York, New Jersey, Pennsylvania, Ohio, Michigan, Illinois and Missouri. Thus, black population growth outside the South from 1940 to 1990 has occurred mainly in states which already had above-average black population shares in 1940. In each of the seven states a large share of black migrants have moved into the major metropolitan areas. By 1990 the average black population share in the seven states (13.5 percent) will be higher than the overall black population share in the U.S. (12.4 percent). Although the majority of blacks will continue to reside in the South in 1990, thirty-two percent (10.0 million of 31.0 million) will reside in these seven northern states.

Relative Earnings by Industry and Region

When male workers are classified by race and industry tabulations of annual earnings reveal two "facts" about black men's relative earnings. (1) On averages black men earn much less than white men in all major industries. (2) Black men's relative earnings are much higher in some industries than in others. Black men have relatively higher earnings in an industry such as durable manufacturing than in an industry like professional services. These

two facts stand out in several data bases; Decennial Censuses, the Current Population Survey and Social Security earnings records.

To provide a more systematic description of male relative earnings patterns by industry, a series of tabulations were executed using each of the five Decennial Censuses from 1940 to 1980. For each year comparisons were made between the earnings of black men and white men aged 16 and older.[1] Industries were classified into twelve broad groupings. Since the tabulations were based on large samples in each census year,[2] there were controls for age (16-19, 20-24 and 25 and older), region (the four census regions) and levels of earnings. Earnings in each year were expressed in dollars of 1984 purchasing power (using the all items Consumer Price Index), and divided into several detailed ranges as well as three summary ranges. Roughly, the three summary ranges were, below the overall black median, between the black median and the white median and above the white median.

Some issues arose which must be kept in mind in comparing the data across years. From 1960 through 1980 exactly comparable tabulations of persons with earnings (including the self employed) could be obtained. For 1950, however, resource constraints forced us to work with only one of two summary files, a large file which did not record worker earnings or a smaller file which did

---

1/ The tabulations were conducted and summarized by Dr. Lisa Neidert of the University of Michigan's Population Studies Center.

2/ For white men the sample sizes were respectively 64,838, 452,268, 41,522, 55,211 and 58,616 between 1940 and 1980. The corresponding numbers for black men were 23,238, 52,388, 36,573, 41,382 and 54,508 respectively.

include worker earnings.[3] We chose the larger file in order to have more reliable estimates of worker counts by race in the detailed industry - age - region cells.

In the 1940 data two other issues were encountered. First, the earnings of the self employed were not recorded in 1940. Thus the 1940 earnings measures refer only to persons with wage and salary earnings. This restriction affected roughly the same relative numbers of men of the two races. Among those who worked 19.4 percent of white men and 21.4 percent of black men had only self employment earnings in the 1940 Census. Although similar proportions of the two male working populations were affected by this exclusion, there are effects on worker counts and perhaps on relative earnings measures when 1940 data are compared to later data.[4]

Second, the 1940 data include temporary emergency workers employed in WPA projects. Emergency workers accounted for 8.8 percent of black male employment in 1940 but only 5.9 percent of white male employment. Because emergency workers on average earned less than others but the proportional differential was smaller among black men, the 1940 ratios were raised somewhat by inclusion of emergency workers. When overall mean earnings were compared the black/white ratio was .440 if emergency workers were included but .434 if they were excluded. Worker counts by industry were also affected, particularly in

---

3/ The larger file had 52,400 observations for black men in 1950 but the smaller file had only 11,400 observations.

4/ For example Table 2 in Smith and Welch (1986) shows that ratios of relative weekly wages for black men (excluding self employment income) increased as much between 1940 and 1960 as between 1960 and 1980. Our summary measures, in Table 3 (below) show that the 1960-to-1980 gains were larger than the 1940-to-1960 gains.

construction where most WPA workers were classified.[5] This should be kept in mind in comparing construction industry employment totals for 1940 and 1950.

Table 3 displays national summary data on employment and average (mean) earnings by race and industry from 1940 to 1980. The decline in agricultural employment which has been much more rapid among black men than among white men would be even more striking if the self employed were included in the data for 1940.[6] By 1980 only 3.2 percent of black men were employed in agriculture. Between 1950 and 1980 black men's employment growth in construction was slower than for white men. The respective shares by race of construction industry employment in 1980 were 8.9 percent and 10.5 percent. Gaining access to jobs in the construction industry continues to be a problem for black men.

The employment of black men has grown rapidly in durable manufacturing, nondurable manufacturing and transportation since 1940. Employment growth in these industries is particularly important because (as will be emphasized in later paragraphs) they provide large numbers of high paying jobs for black men. Total employment in these industries plus mining is summarized in the MMTR row of Table 3. Note that between 1940 and 1950 black male employment in the MMTR industries increased by 86 percent (from 716,000 to 1,330,000) while the corresponding increase for white men was 35 percent (from 11,488,000 to 15,468,000). This contrast by race in the employment growth within heavy industries in the 1940s reflects a change in northern industrial employment practices which occurred during World War II, a point to be reemphasized in

---

5/ Of all emergency workers, 71 percent of white men and 81 percent of black men were classified in the construction industry.

6/ For one analysis of black employment in agriculture see Cogan (1982).

later paragraphs. Overall, the black male employment share in the MMTR industries (the PMMTR line in Table 3) increased from 30.8 percent in 1940 to 41.3 percent in 1980 with most of the increases occurring in the 1940s and 1960s. Since 1970 the share of black men employed in these industries has exceeded the white male employment share (41.3 percent versus 36.2 percent in 1980).

Above-average employment growth in the service industries occurred in all decades covered by Table 3 and has continued in the 1980s. Three groups of service industries which on average provide high paying jobs are wholesale trade, finance and professional services. Table 3 shows employment in each of these industries along with their combined employment (the WFPS line in the table). Black male and white male employment growth in these industries have been rapid between 1940 and 1980. By 1980 the share of black men employed in the three industries reached 20.0 percent and was nearly as high as the white male employment share of 21.4 percent. (Note the PWFPS line in Table 3.)

When the three individual industries are examined, however, it is apparent that black male employment growth has been more rapid in professional services than in wholesale trade and finance. The percentages of black men employed in the latter two industries in 1980 were 4.0 percent and 3.2 percent while the corresponding percentage shares for white men were 5.5. percent and 4.4 percent. Black men have clearly been more successful in securing employment in professional services than in wholesale trade and finance.

The final contrast in male industry employment patterns to note is the greater importance of jobs in public administration for black men. Job growth in this industry was much more rapid for black men between 1940 and 1980. In

1980 the employment shares were 7.1 percent for black men and 5.1 percent for white men.[7]

To summarize, four aspects of black male employment and employment growth between 1940 and 1980 are noteworthy. (1) There was a rapid decline in agriculture employment. (2) Employment in the MMTR industries has grown and now is relatively more important to black men than to white men. (3) Growth in employment in professional services and public administration have both been rapid. (4) Black male employment shares continue to lag behind white male shares in construction, wholesale trade and finance.

The mean earnings measures in Table 3 show that agriculture is the lowest paying industry for men of both races. Among nonagricultural industries, retail trade and other services[8] are the lowest paying industries.[9] For black men average earnings were highest in public administration for 1940, 1960 and 1970 but then somewhat lower in 1980, surpassed by the averages in mining, durable manufacturing and transportation.

White men obtain high average earnings in two groups of industries; mining, durable manufacturing, nondurable manufacturing and transportation

---

7/ Public administration covers just civil servants in federal, state and local governments whose jobs have two digit standard industrial classifications (SIC) codes from 90 to 99. Public sector teaches, doctors and transport workers with other industrial classifications are included with professional services, transportation and other industry groups along with private sector employees in Decennial Census data.

8/ Other services covers all service industries with two digit SIC codes from 70 to 89 except for SICs 80-86 and SIC 89

9/ Recall that construction in 1940 includes many WPA workers who had low annual earnings. The means for other construction workers in 1940 were $7223 for white men and $3861 for black men.

(MMTR) and wholesale trade, finance and professional services (WFPS). The MMTR industries are highly unionized and high earnings are realized by many production workers. In 1980 white men's average earnings in these industries were 9.4 percent higher than the all industry average ($25,148 versus $22,991). Mean earnings were even higher in the WFPS industries in 1980, $27,969 or 21.7 percent above the all industry average. The latter industries which include many professionals and self employed individuals have had consistently high mean earnings in all years covered by Table 3. The excess of the WFPS mean above the all industry average for white men ranged from 20.3 percent (1970) to 38.6 (1940) in the other years covered by the table.

Black men's mean earnings in these two sets of industries present important contrasts. Consistently high average earnings are found in the MMTR industries where the 1980 mean was 17.5 percent above the all industry average ($18,140 versus $15,432). In contrast, the 1980 average for black men in the WFPS industries was almost exactly equal to the all industry average ($15,377 versus $15,432), and the means for each of the three separate industries were also close to the all industry average. When one examines mean earnings for earlier census years it is clear that black men have consistently realized high earnings in the MMTR industries whereas in the WFPS industries average earnings have grown much more slowly than the all industry average. The ratio of the WFPS mean to the all industry mean declined from 1.351 in 1940 ($5,311/$3,931) to .996 in 1980 ($15,377/$15,432).

A summary of trends in black men's relative earnings (the black mean as a proportion of the white mean) appears at the bottom of Table 3. Between 1940 and 1980 the overall ratio increased from .440 to .671 for all men 16 and older

and from .434 to .668 for men 25 and older. Throughout the 1940 to 1980 period relative earnings in the MMTR industries remained above the all industry average, but in the WFPS industries relative earnings remained below the all industry average. Among all men 16 and older the relative earnings ratios in 1980 were .671 for all industries, .721 for the MMTR industries and .550 for the WFPS industries.

Considering the 1940-to-1980 changes in black men's employment, average earnings and relative earnings by industry, a major contrast between the MMTR and WFPS industries emerges. The percentage of black men employed in both industry groupings increased by more than ten percentage points. In the MMTR industries, however, employment gains were realized while at the same time high relative earnings were also maintained. Average earnings were high relative to the black all industry average and high relative to the average for white men employed in the MMTR industries. In contrast, while major employment gains in the WFPS industries did take place, average earnings grew less rapidly than the black male all industry average and relative earnings showed below average gains. By 1980 black men in the WFPS industries had mean earnings about equal to the all industry mean while in the MMTR industries the mean was more than twenty percent above the all industry average.

The rich detail on employment and earnings by race available from decennial census can be usefully summarized in other ways. Table 4 displays data from 1940 and 1980 which show medians as well as means and counts of workers with high earnings. These data permit one to assess differences in the shapes of earnings distributions by race and industry as well as changes that may have occurred over time. The industry detail in Table 4 has been collapsed

into three groupings; the MMTR and WFPS industries as defined above and the five remaining industries combined into an "All Other" category. The worker counts, employment shares and mean earnings which appear in the first three columns repeat information shown previously in Table 3. All other summary information is new.

By displaying both means and medians one can assess the degree of positive skewness in each earnings distribution. Higher skewness, i.e. a higher share of total earnings concentrated in the highest earnings categories, is indicated by higher mean/median ratios. For all four race-year combinations the WFPS earnings distribution is more highly skewed than the MMTR distribution. Relative to other industries earnings in the MMTR industries are more evenly distributed. Note that overall earnings skewness decreased between 1940 and 1980 for men of both races.

The earnings medians for 1940 and 1980 indicate gains in black men's relative earnings which are similar in magnitude to the changes in the mean earnings ratios of Table 3. The ratio of the black median to the white median increased from .413 ($3100/$7507) in 1940 to .658 ($13,227/$20,091) in 1980.

Table 4 also shows total counts of workers with high earnings in the three industry groupings. Among white men the share of high earners in the MMTR industries declined by 8.6 percentage points between 1940 and 1980 (from 52.9 percent to 44.3 percent), but the share increased by 9.3 percentage points in the WFPS industries (from 14.3 percent to 23.6 percent). These changes mirror changes in white male employment patterns by industry. For black men both the MMTR and WFPS industries became more important sources of high paying jobs. By 1980 over half of black men with high earnings were employed in the MMTR

industries while about 20 percent were employed in the WFPS industries. As a source of high paying jobs vis-a-vis others of the same race the MMTR industries had become more important to black men than to white men in 1980. This topic will be explored further in later sections of the paper.

Geographic aspects of black men's employment and relative earnings from 1940 to 1980 are summarized in Table 5. The table shows employment for three industry groupings (MMTR, WFPS and All Other) for each of the four census regions. Probably the most dramatic change evident in the table is the increase in MMTR employment for black men outside the South between 1940 and 1950. Employment in these industries increased by 130,000 in the North East (from 91,000 to 221,000) and by 218,000 (from 118,000 to 336,000) in the Midwest. The share of total black male employment in the MMTR industries in the 1940s increased from .319 to .411 in the North East and from .344 to .535 in the Midwest while it declined moderately in the South, from .301 to .284. (Note the PMMTR rows in Table 5.) An alternative way to describe the size of change in the Midwest is to observe that the MMTR industries accounted for about one-third of black men's employment in 1940, but they accounted for about three-fourths of the employment change between 1940 and 1950. Note that after 1950 black male employment shares in the MMTR industries have been stable in both the North East and the Midwest.

The other major breakthrough of black men's employment in the MMTR industries occurred in the South in between 1960 and 1980. Over these twenty years black men added 462,000 MMTR jobs in the South while white men added 1,842,000 jobs. The share of black men employed in these industries rose from

.312 in 1960 to .394 in 1980.[10] The MMTR employment share for black men in the South in 1980 (.394) was higher than in the West (.354) and nearly as high as in the North East (.398).

Table 5 also displays black men's relative mean earnings for 1940, 1960, 1970 and 1980. In all years relative earnings were lowest in the South. Outside the South there is a consistent pattern of black men's relative earnings being highest in the Midwest, intermediate in the West and lowest in the North East.[11] The range of variation in the nonsouthern average earnings ratios, however, is quite modest, e.g. from .715 in the North East to .767 in the Midwest in 1980. The major contrast in relative earnings by region continues to be the differential between the South and the rest of the U.S..

For all three regions outside the South black men's relative earnings already exceeded .60 in 1940. Between 1940 and 1960 the largest gains in relative earnings occurred in the Midwest (increasing from .619 to .690) while very small increases in the ratios took place in the South and West (increasing .026 and .019 respectively). Between 1960 and 1980 the largest gains in relative earnings took place in the South. The southern ratio increased from .448 in 1960 to .624 in 1980 or by .176. Increases in the other regions ranged from .064 in the North East to .077 in the Midwest. Over that twenty year span the relative earnings gap between the South and the rest of the U.S. narrowed

---

10/ See Heckman and Payner (1989) for a recent analysis of black employment gains in the textile and apparel industries of South Carolina and other southeastern states during the 1960s and 1970s.

11/ Data from the West in 1940 provide the only exception to this ranking by region.

considerably but it still exceeded ten percentage points in 1980, i.e. .624 in the South but .741 outside the South.

The final point to note in Table 5 concerns the timing of black male employment gains in the MMTR industries and their relative earnings gains in the regions. Gains in both MMTR employment and in relative earnings took place in the North East and the Midwest during World War II, and gains in both took place in the South during the 1960s and 1970s. In the two periods MMTR employers significantly altered their hiring practices and employment policies in ways that helped both the employment of black men and their relative earnings. The effects of the changes are apparent in the regional decennial census data of Table 5.

Employment Growth by Region and Industry

The distribution of employment by region and industry within the U.S. has undergone major changes since World War II. This section discusses selected aspects of employment growth with attention first to the four major regions defined by the Census Bureau; the North East, Midwest, South and West. Later, attention will be focused on the seven northern states where blacks constitute an above-average share of the total population.

Two "facts" about U.S. regional labor markets from 1948 to 1987 are; i) the faster employment growth of the South and West and ii) the departure of regional labor market performance from the national labor market for consecutive multi-year periods. The long run growth disparities can be illustrated as follows. Between 1948 and 1987 the share of total private

nonfarm employment located in the North East fell from 33.1 percent to 22.9 percent, and in the Midwest it fell from 31.6 percent to 24.7 percent. The rates of decline of these regions' shares, however, were not uniform as indicated with data from the 1980s. Between 1979 and 1987 the employment share for the North East was stable at roughly 23.0 percent of the national total while the Midwest's share declined from 27.3 percent to 24.7 percent, more than twice as fast as during the previous thirty years.

Within each region's labor market, employment growth in goods producing industries has generally been slower than in service industries. For the mining, manufacturing and transportation (MMTR) industries in particular, employment growth has lagged behind overall employment growth. Since mining and manufacturing are sensitive to developments in foreign markets as well as domestic markets, the deterioration in the U.S. merchandise trade balance of the 1980s has been a recent factor contributing to the below-average employment growth in these industries. Between 1948 and 1987 the combined employment share for mining, manufacturing and transportation declined from 53.3 percent of private nonfarm employment to 29.5 percent. The decline was most dramatic in the North East (from 56.9 percent to 28.3 percent), but the decline also exceed 20 percentage points in the Midwest (from 56.0 percent to 32.6 percent) and the South (from 50.2 percent to 29.8 percent). Only in the West was the decline in the percentage share somewhat smaller, from 42.1 percent in 1948 to 26.7 percent in 1987.

In all regions the decline in the MMTR employment share has been more rapid since 1969 than in earlier years. The nationwide MMTR employment percentage, for example, declined from 53.3 percent in 1948 to 43.6 percent in

1969 and then to 29.5 percent in 1987. In fact, the nationwide level of employment in these industries was nearly the same in 1969 as in 1987 (declining from 25.3 million to 25.1 million) while total private nonfarm employment increased by 26.9 million (from 58.0 million to 84.9 million).

Recall from Table 2 that the black population outside the South is heavily concentrated in seven states. Since 1940 New York, New Jersey, Pennsylvania, Ohio, Michigan, Illinois and Missouri have consistently had black population shares which exceed the average share for all states outside the South. Table 6 shows time series employment data for these seven states along with national data for the 1948-1987 period. Employment levels (in millions) and proportions are shown for all private industries and for the MMTR industries. The purpose of the table is to provide summary indicators of employment trends with particular attention to these seven states. The MMTR industries are given explicit attention because they are such an important source of high paying jobs for black men.

At least two things stand out in Table 6. (1) Employment growth in the seven states has been much slower than average U.S. employment growth. Their total employment increased by 8.7 million or by about half over these forty years while U.S. employment increased by 46.0 million. For all other states beside these seven total employment nearly tripled between 1948 and 1987, growing from 20.7 million to 57.9 million. Thus the share of total employment located in the seven states, column (7), declined from 46.8 percent to 31.7 percent. (2) The absolute level of employment in the MMTR industries of these states declined, (column (3)), with noticeable decreases taking place after 1969. By 1987 2.3 million fewer people were employed in the MMTR industries

for the seven states than in 1948 (8.1 million versus 10.4 million). Note also that the MMTR share of total employment decreased more rapidly in the seven states, column (9), than in the rest of the U.S., column (10). Thus the northern states with high black population shares experienced below average employment growth and a substantial loss of MMTR employment between 1948 and 1987.

To provide an alternative summary of employment experiences in the seven states and in the MMTR industries, a number of time series regressions were fitted that covered the 1948-1987 period. The regressions estimated separate trend and business cycle components of the employment shares and tested for changes in employment share trends after 1969. The analysis examined the employment share in the seven states, column (7) of Table 6, and MMTR employment shares in the U.S. and in the seven states, columns (8) and (9) of Table 6. The regression equations are displayed in Table 7.

Equations (1)-(4) examine the share of private nonfarm employment located in the seven northern states. The trend from 1948 is the dominant explanatory variable in all four equations. Its coefficients implies that the share of employment located in the seven declines by 1 percentage point per each two-and-one-half to three years. Evidence of both cyclical sensitivity and an acceleration in the downtrend after 1969 can also be inferenced from the equations. Note how the standard error and the size of the trend coefficient are both larger in equation (2) which covers all forty years than in equation (1) which was fitted only through 1969. The test for the accelerated downtrend in equation (3), i.e. adding a separate trend from 1970, yields a negative coefficient on the trend acceleration term with a t ratio of 4.6. In equation

(4) which corrects for first order and second order serial correlation in the residuals the coefficient on the trend acceleration term declines by half and loses significance. Based on standard statistical tests the evidence of a significant downward acceleration in the employment shares of these states is suggestive but not unanimous. In contrast, the evidence is unanimous regarding the longer term decline in the share of total employment located in the seven states.

Projections from equation (1) (See Figure A below.) provide a different type of evidence on the question of the accelerated loss of employment shares. When this regression which was fitted through 1969 was used to project employment shares in later years the bulk of the errors were negative, i.e. employment shares were overpredicted. For the eighteen year period from 1970 to 1987 sixteen of eighteen errors were negative; all exceeded one percentage point starting in 1974; and they exceeded two percentage points from 1979 through 1982. Between 1983 and 1987 the average projection from equation (1) averaged .337 while the actual employment share averaged .319, or 5.4 percent less than projected. On balance, the bulk of the evidence is consistent with a modest downward acceleration after 1969 in the share of jobs located in these seven northern states.

The MMTR employment share in the U.S. is examined in equations (5) - (8). All equations show evidence of a strong downtrend from 1948 as well as strong cyclical sensitivity in these industries' employment share.[12] Equations (6),

---

12/ See Okun (1973) for one analysis of the cyclical sensitivity of employment in various major industries. Durable manufacturing employment consistently exhibits the greatest cyclical responsiveness of all major industries.

(7) and (8) indicate that the employment share of these industries declined at an accelerated rate after 1969. Also note that equation (7) provides evidence of an impact of net exports on the MMTR employment share. The trend acceleration term and the net export share both contribute to the declining MMTR employment share in the 1980s. Finally, note that the correction for serial correlation in equation (8) does not affect the statistical significance of the variables as much as in equation (4). All four independent variables in equation (7) retain significance (at the .05 level) in equation (8) although the coefficient for the net export share is reduced by half. The employment share of the MMTR industries declined at an accelerated rate after 1969, and part of the decline in the 1980s has been due to the the deterioration in the U.S. foreign trade balance.

Equations (9) - (12) use the specifications and estimation periods of equations (5) - (8) to explain the MMTR employment shares in the seven large northern states. Recall from Table 6 (columns (9) and (10)) that the MMTR employment shares have declined more rapidly in the seven states than in the rest of the country. All long term trend coefficients are larger in equations (9) - (12) of Table 7 than their counterparts in equations (5) - (8). The cyclical coefficients are also uniformly larger in equations (9) - (12). The post 1969 trend and the real net export share enter equations (11) with expected signs and high significance, but the correction for serial correlation in equation (12) reduces the size of both coefficients and causes both to lose significance. Thus evidence of the trend acceleration after 1969 is more mixed for the MMTR industries of the seven states (equations (11) and (12)) than it is in the national data (equations (7) and (8)).

To help summarize the loss of employment shares in the seven states and in the MMTR industries respectively, Figures A and B provide plots of the time series data from 1948 to 1987. In each figure the actual employment shares are plotted along with the shares projected from equations fitted through 1969, equation (1) of Table 7 in Figure A and equation (5) in Figure B. Note how the regression equations both make substantial overpredictions in the 1970s and 1980s. In Figure A the overpredictions are largest from 1979 to 1982 while in Figure B they are largest from 1984 to 1987.

The preceding analysis of employment growth by region and industry points to four conclusions. (1) The seven northern states where blacks constitute an above-average share of the population have been experiencing below average employment growth since 1948. (2) Industries where black men realize high absolute earnings and high relative earnings vis-a-vis white men, the MMTR industries, have been experiencing below average employment growth in all major regions of the U.S. since 1948. (3) The employment share of the seven large northern states has been declining at an accelerated rate since 1969. (4) The employment share of the MMTR industries has been declining at an accelerated rate since 1969. Of the four conclusions, the evidence was least unanimous in reference to number (3). The next section tests for an effect of slow employment growth by geographic area and/or industry on the relative earnings of black men.

Time Series Analysis of Relative Earnings

Economic explanations for the low relative earnings of black men can be divided into three broad classes: supply theories, demand theories and spatial

mismatch theories. Supply theories emphasize racial differences in the quantity and quality of schooling and other aspects of human capital formation. Demand theories stress the importance of both overall demand (the business cycle) and racial discrimination as the primary determinants of low relative earnings. Spatial mismatch theories stress the negative consequences for black workers arising from the movement of high paying industrial jobs out of central cities of major urban areas and away from black population centers.

Associated with each of the three perspectives is a large body of theoretical and empirical literature. Recent papers by Smith and Welch (1986) and the U.S. Commission on Civil Rights (1986) stress the human capital explanation. Freeman's (1973) early paper is often cited for its emphasis on changes in discrimination in contributing to gains in relative earnings. Heckman and Payner (1989) have recently provided important documentation to support this perspective. Kasarda (1984) (1987) and Wilson (1987) have both stressed the importance of spatial mismatches. A major paper by Cain (1986) reviews and evaluates much of this literature. Vroman (1988) provides a more abbreviated literature summary for each of the three explanations.

The relative earnings regression specifications to be tested here draw upon ideas present of each of these explanations. Because the explanatory variables used to represent the supply and demand explanations have been used in previous analyses, however, more attention is focused on the spatial mismatch explanation and the representation of spatial mismatch variables.

The Spatial Mismatch Explanation

The spatial mismatch hypothesis is founded on two stylized facts that characterize the economies of large metropolitan areas (MSAs). (1) The black population is much more heavily concentrated in the inner areas of MSAs, particularly MSAs outside of the South, than is the white population. (2) Employment growth has been much more rapid in suburban areas than in the central cities of the large MSAs. It is then argued that movement of jobs out of central city areas poses employment problems for blacks. The combined effects of housing market discrimination, inadequate public transportation and incomplete information about the location and availability of suburban job opportunities prevent black workers from following the jobs to the suburbs. The resulting spatial mismatch which grows with the passage of time underlies the poor economic performance (low earnings, high unemployment and declining labor force participation) of blacks in large urban areas.

The original exposition and testing of the spatial mismatch hypothesis is usually attributed to Kain (1968). His testing was based on 1950s commuting data from the Chicago and Detroit metropolitan areas. He found that black shares of total employment across small geographic areas (workplace zones) were significantly higher in black neighborhoods and neighborhoods close to the major urban ghetto. Kain's conclusion was that residential segregation by race leads to racial employment segregation. Thus, housing discrimination contributes to poor labor market outcomes and must be considered along with employment discrimination as a cause of low earnings and high unemployment among black workers.

The spatial mismatch hypothesis was controversial when originally proposed and has been subjected to several criticisms. (See Part II of Leonard (1986).) Recently it has experienced a revival of interest in the writings of Elwood (1986), Kasarda (1984, 1987), Leonard (1985, 1986) and Wilson (1987). The perspectives and the lines of argument of Kasarda and Wilson in particular depart in important ways from Kain's original writing. Kasarda emphasizes the transformation of central city economic activity from a manufacturing base to the provision of services and information processing. The newer jobs have educational requirements much higher than the requirements of the traditional manufacturing jobs that are disappearing. Kasarda (1987) also argues that entry level jobs (so important to teenagers) are being created mainly in the suburbs, not in the central cities, and that problems of spatial mismatch are more severe in the North East and Midwest than in the South and West. Wilson stresses differential geographic mobility within the black community with higher income and more educated blacks leaving the traditional black residential areas. As these inner-city areas become increasingly ghettoized, employment opportunities for the remaining residents (especially males) decline, partly due to their increasing social isolation and the absence of successful role models. These authors share with Kain the perception that black economic performance would be enhanced if central city areas could retain their traditional manufacturing employment base.

As it has been developed and tested the spatial mismatch hypothesis tries to link black economic performance to changes in the spatial and industrial distribution of employment within urban areas. It contemplates the movement of jobs from the central city to the suburbs. Other possible destinations for job

moves (particularly for manufacturing jobs) include rural areas in the state (so called greenfields), other geographic regions of the U.S. and abroad. The latter moves probably have been as characteristic as moves to the suburbs, particularly for jobs in northeastern cities in the 1970s and midwestern cities in the 1980s. To the extent that the state, census division or census region defines the relevant extent of the labor market, the spatial mismatch hypothesis includes broader geographic dimensions than have emphasized to date. For purposes of improving the labor market prospects of black workers in Chicago, ending discriminatory housing practices in the Chicago suburbs may shrink in importance relative to providing information on job openings, tax incentives and relocation allowances for workers to move to Boston, Los Angeles or whatever urban labor markets have the best available jobs. A regional (or other macro) perspective may provide a useful complement to the urban labor market perspective which underlies the spatial mismatch hypothesis.

The earlier descriptive sections of this paper on population growth, relative earnings and employment growth by region and industry can be viewed as contributory elements in a macro formulation of a spatial mismatch explanation. During the 1940s, 1950s and 1960s large numbers of blacks moved out of the South and the majority went to major cities in the seven large northern states identified earlier.[13] Job opportunities were available to blacks and many of the jobs were high paying jobs in the MMTR industries.

Economic conditions in these same industries and states changed for the worse after 1969. The share of nationwide employment located in the seven

---

13/ New York, New Jersey, Pennsylvania, Ohio, Michigan, Illinois and Missouri

states began to decline at an accelerated rate and the employment share of the MMTR industries began to decline at an accelerated rate. Blacks stopped migrating to the northern states, but for those already resident in the North job opportunities declined.

If the preceding provides a useful summary of regional and industrial employment developments, the data on employment shares examined in Tables 6 and 7 could help to explain changes in black men's relative earnings. Relative earnings would be reduced by a decline in the proportion of jobs located in the seven northern states, a decline in the proportion of jobs in the MMTR industries or (perhaps even closer in spirit to the spatial mismatch hypothesis) a decline in MMTR jobs located in the seven states as a proportion of all jobs. Data on these three employment proportions are all present in Table 6, i.e. column (7), column (8) and the product of columns (7) and (9) respectively. All three employment share variables are tested in the subsequent regression analysis of black men's relative earnings.

Alternative Data Series Relative Earnings

Table 8 displays several data series on the relative earnings of black men. The data are from two sources; household interview data from the Current Population Survey (CPS) and Social Security Administration (SSA) earnings records taken from employer payroll reports. All series are ratios of the black median to the white median as measured in national data on annual earnings. The minority male median which underlies column (1) refers to nonwhites whereas all other minority series refer to blacks. Wage and salary workers in column (1) are defined as persons employed as wage and salary

workers in March of the following year while the other series refer to all persons with earnings in the year. On average, wage and salary workers constitute 75 to 80 percent of all workers with earnings.[14] The ratios in column (1) are higher than in column (2) both because other nonwhites (included in (1)) earn more than blacks and because black/white ratios are higher for wage and salary workers than for all workers.

Since the mid 1970s the black population as a share of the overall nonwhite population has declined by roughly ten percentage points from less than 90 percent to less than 80 percent. Since other nonwhites who are predominantly Asians earn considerably more than blacks note how the gap between the ratios in columns (1) and (2) grows somewhat wider after the mid 1970s.

The CPS distinguishes blacks from other nonwhites only starting in 1967. From 1967 to 1976 the average difference between the relative earnings ratios of columns (1) and (2) was .051. To provide a longer time series for the relative earnings of all black workers, .051 was subtracted from the nonwhite/white ratios of column (1) in years prior to 1967. These estimates were combined with the black/white estimates of column (2) to yield the constructed series which appears in column (3). Since the black share of the nonwhite population trended downward quite slowly prior to 1970.[15] this

---

14/ For a useful discussion of the data on wage and salary workers see Brown (1984).

15/ In Decennial Census data of 1950, 1960 and 1970 the black shares of the nonwhite population were respectively 95.5 percent, 92.1 percent and 89.8 percent.

constructed series may provide a reasonable approximation to black/white all worker ratios before to 1967

Columns (3), (4) and (5) show black/white ratios based on SSA data. Column (4) was taken from detailed tabulations of earnings distributions for 16-64 year olds which included underlying detail on earnings by sex, race, age, region and city size.[16] The column (5) data are from summary tabulations that distinguish workers only by race and sex. The race designations in both sets of SSA data are black and all other which includes other nonwhites and persons of unknown race as well as whites. After making comparisons of the two types of tabulations for 1972 and 1973 they appeared to be so similar that they were combined into the constructed series which appears in column (6). The constructed SSA data series extends from 1957 to 1986.

When relative earnings ratios based on CPS and SSA data are compared, the latter are generally lower. This is reasonable since the coverage of SSA data in the public sector is incomplete. All federal employees and about one-third of state and local workers are not included in the data.[17] The earnings of the noncovered black workers are relatively much higher than for the noncovered white workers.

Each of the three data series in column (1), (3) and (6) of Table 8 are used as dependent variables in the regression analysis of relative earnings. To give a better idea of their time series behavior Figure C shows plots of all

---

16/ See Vroman (1974) for one analysis which uses data from these detailed tabulations.

17/ Newly-hired federal employees were covered in the SSA data starting in 1984.

three. The SSA ratios show less year-to-year variation, something to be expected since the SSA sample is larger than the CPS sample and the SSA sample is longitudinal.[18]

All three series in Figure C show that relative earnings increased in the period from the mid 1960s to the mid 1970s. After the mid 1970s, however, no series shows a noticeable upward trend. The upward deviations in the SSA series in 1982 and 1983 coincide with the years of highest unemployment in the entire post World War II period.

Finally, there is evidence in the two CPS series that the black/white ratio declined relative to the nonwhite/white ratio towards the end of the data period. The gap between the two averaged .056 from 1973 to 1977 (.709 versus .653) but it averaged .079 from 1983 to 1987 (.715 versus .636). The racial distinction between blacks and nonwhites is important and may become more important in the future if the black share of the nonwhite population continues to decline.

Regression Results

The regression specification used to explain black men's relative earnings included variables from each of the three perspectives discussed earlier. Supply theories were represented with a linear trend, a convenient proxy for the long term improvements in black men's relative educational attainment. A

18/ For example the unweighted count of nonwhite wage and salary workers in 1965 in the CPS was 4026 while black men with earnings aged 16 to 64 in the SSA data numbered 42,709. There were even larger proportional disparities between the two sample sizes prior to 1965.

linear trend may be appropriate to capture "slowly evolving historical forces ... that enhance the labor market skills of blacks" (Smith and Welch (1986), p. xxi).

Demand theories were represented with the unemployment rate, a proxy for the business cycle, and a trend which was operative only from 1965 to 1974 (= 0 before 1965, = 1 in 1965, = 2 in 1966, ..., = 10 in 1974 and later years). The dating of the start of this trend follows Freeman (1973) and Vroman (1974) and is also supported by the timing of changes in southern employment practices extensively documented by Heckman and Payner (1989). The choice of the ending point for the trend (1974) is arbitrary.[19]

Three spatial mismatch variables were tested: i) the share of private nonfarm jobs located in the seven northern states, ii) the share of U.S. private nonfarm employment represented by jobs in the MMTR industries and iii) MMTR employment in the seven northern states as a proportion of U.S. private nonfarm employment. Since this is the most novel element of the time series specification it seemed advisable to report results using each of the three mismatch variables.

Table 9 shows the regressions. The nine combinations of the three dependent variables and the three spatial mismatch variables are displayed in equations (1) - (9). Since positive serial correlation was apparent in the SSA data, those equations were refitted adjusting for both first order and second

---

19/ In the regression analysis the choice of the ending year for this trend (ranging from 1973 to 1977) did not have important effects on the overall fits of the equations or the coefficients on the other independent variables.

order serial correlation, i.e. equations (10)-(12). The equations fit quite well with all adjusted R^2s ranging from .92 to .96.

Generally, the maintained hypotheses are supported in Table 9. Of the 48 slope coefficients of interest 41 have the expected signs. All seven unexpected signs are found on the unemployment rate, but only one, in equation (9), is statistically significant. These regressions do not support the hypothesis that movement of the economy towards full employment raises the relative earnings of black men. The unemployment rate used in Table 9 is the rate for all persons 16 and older. Nearly identical results were obtained using two alternative cyclical control variables; the unemployment rate for men aged 25 to 54 and the proportional deviation of actual real GDP from potential real GDP (as estimated by the Congressional Budget Office).

The dominant explanatory variable in all equations is the trend operative from 1965 to 1974. Its t ratio ranges from 4.7 to 9.2 across the twelve equations. The point estimate for the trend's coefficient implies that relative earnings in 1974 were higher than in 1964 by 9.8 to 16.1 percentage points. Note also that the point estimates were uniformly higher in CPS data than in SSA data. We interpret there results as supportive of the idea that government and private EEO activities of this period yielded major gains for black men. From other data we know that the gains of this period were much larger in the South than elsewhere.

The long term trend enters all equations with the expected positive sign, but most trend coefficients are of modest size. In ten of twelve equations the trend coefficient suggests that slowly evolving factors raised relative earnings from between .6 and 7.5 percentage points per decade.

All three spatial mismatch variables enter the equations with expected positive signs. However, only 5 of 12 have t ratios that exceed 2.0, and 3 of the 5 are found in equations (7)-(9) which have significant positive serial correlation in the residuals.[20] Note also in each set of three equations that the coefficient is largest for the variable measuring MMTR employment in the seven states as a proportion of U.S. private nonfarm employment.

The presence of adverse trends in employment shares by region and/or industry may help to explain why black men's gains in schooling have not translated into larger gains in relative earnings. If the employment shares had remained stable over time black men might have realized larger gains in relative earnings.

An important question to address using the equations of Table 9 is the impact of the accelerated declines after 1969 in the employment shares of the seven northern states and the MMTR industries. From data examined in Tables 6 and 7 it is clear that strong downtrends in these employment shares have been present since 1948. To estimate the excess loss of employment shares since 1969 deviations were calculated between actual employment shares in 1986 and 1987 and the shares projected from equations in Table 7 which were fitted through 1969. Projections from equation (1), equation (5) and the product of projections from equations (1) and (9) of Table 7 were used to provide the counterfactual estimates of employment shares for 1986 and 1987.

The resulting estimates of the excess loss of employment shares since 1969 were then multiplied by the appropriate spatial mismatch (employment share)

20/ The lower bound of the indeterminant range for the Durbin-Watson statistic is 1.04 for a test at the .05 level.

coefficients in Table 9. For specifications using the share of employment in the seven states (equations (1), (4), (7) and (10)) the results suggested that relative earnings were reduced by .008 to .029 in 1986 and 1987. Larger estimates, ranging up to .055, were obtained from equations that used the share of jobs in the MMTR industries (equations (2), (5), (8) and (11)). The largest estimates, which ranged from .025 to .112, were obtained from equations which used the share of MMTR jobs in the seven states as a proportion of all private nonfarm jobs in the U.S. (equations (3), (6), (9) and (12)).

Considering the full set of estimates across the three representations of the spatial mismatch hypothesis, the results suggest that the accelerated decline in employment shares has caused black men's relative earnings to be from 1 to 18 percent lower in 1986 and 1987 than what they otherwise would have been. Estimates from the middle and high end of this estimated range are sufficiently large to suggest important macro consequences of charges in trends in employment shares by region and/or industry since 1969. Since the estimated effects from ten of twelve equations of Table 9 are in the range from 9 percent (5.5 percentage points) or smaller, it may be prudent to conclude the accelerated loss of employment shares has had only a modest aggregate effect on black men's relative earnings.

References

Brown, Charles, "Black-White Earnings Ratios Since Civil Rights Act of 1964: The Importance of Labor Market Dropouts," Quarterly Journal of Economics (February 1984), pp. 31-44.

Cain, Glen, "The Economic Analysis of Labor Market Discrimination: A Survey," in Orley Ashenfelter and Richard Layard, eds., Handbook of Labor Economics Volume I (Amsterdam, Netherlands: North Holland Press, 1986), pp. 693-785.

Cogan, John, "The Decline in Black Teenage Employment: 1950-1970," American Economic Review (September 1982), pp. 621-639.

Ellwood, David, "The Spatial Mismatch Hypothesis: Are There Teenage Jobs Missing in the Ghetto?" in Richard Freeman and Harry Holzer, eds., The Black Youth Employment Crisis, NBER (Chicago, IL: University of Chicago Press, 1986), pp. 147-190.

Freeman, Richard, "Changes in the Labor Market for Black Americans, 1948-72," Brookings Papers on Economic Activity (1:1973), pp. 57-131.

Freeman, Richard and John Bound, "Black Economic Progress: Erosion of the Post 1965 Gains in the 1980s?" in Steve Schulman and William Darity, eds., Blacks and Whites in the U.S. Labor Market, (Wesleyan, CN: Wesleyan University Press, 1989).

Heckman, James and Brook Payner, "Determining the Impact of Federal Antidiscrimination Policy on the Economic Status of Blacks: A Study of South Carolina," American Economic Review, (March 1989), pp. 138-177.

Kain, John, "Housing, Segregation, Negro Employment and Metropolitan Decentralization," Quarterly Journal of Economics, (May 1968), pp. 32-59.

Kasarda, John, "The Regional and Urban Redistribution of People and Jobs in the U.S.," Prepared for the National Research Council Committee on National Urban Policy, (May 1987).

_____, "Urban Change and Minority Opportunities" in Paul Peterson, ed., The New Urban Reality, (Washington, D.C.: the Brookings Institution, 1984), pp. 33-67.

Leonard Jonathan, "The Interaction of Residential Segregation and Employment Discrimination," University of California, Berkeley, School of Business Administration (May 1985).

_____, "Space, Time and Unemployment: Los Angeles 1980," University of California, Berkeley, School of Business Administration, (1986).

Okun, Arthur, "Upward Mobility in a High Pressure Economy," Brookings Papers on Economic Activity (1:1973), pp. 207-261.

Smith, James and Finis Welch, Closing the Gap: Forty Years of Economic Progress for Blacks (Santa Monica, CA: The Rand Corporation, 1986).

U.S. Commission on Civil Rights, The Economic Progress of Black Men in America, (Washington, DC: U.S. Commission on Civil Rights, 1986).

Vroman, Wayne, "Changes in Black Workers' Relative Earnings" Evidence from the 1960's" in Von Furstenberg et al., eds., Patterns of Racial Discrimination, Volume II: Employment and Income (Lexington, MA: D.C. Health, 1974), pp. 167-196.

_____, "The Economic Performance of Minorities in National and Urban Labor Markets," Report for Project 3730-06, The Urban Institute (March 1988).

Wilson, William, The Truly Disadvantaged: Essays on Inner City Woes and Public Policy (Chicago, IL: University of Chicago Press, 1987).

Table 1. Population Growth by Race and Region, 1930 to 1990

	Total Population (000s)						
	1930	1940	1950	1960	1970	1980	1990
Northeast	34427	35977	39478	44678	48954	49143	50577
Midwest	38594	40143	44461	51619	56519	58874	59777
West	11896	13883	20190	28053	34678	43382	52261
South	37858	41666	47197	54973	62738	75390	87276
United States	122775	131669	151326	179323	202888	226789	249891

	Total Population- Percentage Growth Rate					
	1930s	1940s	1950s	1960s	1970s	1980s
Northeast	4.5	9.7	13.2	9.6	0.4	2.9
Midwest	4.0	10.8	16.1	9.5	4.2	1.5
West	16.7	45.4	38.9	23.6	25.1	20.5
South	10.1	13.3	16.5	14.1	20.2	15.8
United States	7.2	14.9	18.5	13.1	11.8	10.2

	Black Population (000s)						
	1930	1940	1950	1960	1970	1980	1990
Northeast	1147	1370	2018	3029	4344	4849	5705
Midwest	1262	1420	2228	3446	4572	5338	5995
West	120	171	573	1086	1695	2262	2907
South	9362	9905	10225	11312	11970	14048	16379
United States	11891	12866	15045	18872	22580	26497	31026

	Black Population- Percentage Growth Rate					
	1930s	1940s	1950s	1960s	1970s	1980s
Northeast	19.4	47.3	50.1	43.4	11.6	17.7
Midwest	12.5	56.9	54.7	32.7	16.8	12.3
West	41.8	235.9	89.3	56.1	33.5	28.5
South	5.8	3.2	10.6	5.8	17.4	16.6
United States	8.2	16.9	25.4	19.7	17.3	17.1

	Black Population Share (percent)						
	1930	1940	1950	1960	1970	1980	1990
Northeast	3.3	3.8	5.1	6.8	8.9	9.9	11.3
Midwest	3.3	3.5	5.0	6.7	8.1	9.1	10.0
West	1.0	1.2	2.8	3.9	4.9	5.2	5.6
South	24.7	23.8	21.7	20.6	19.1	18.6	18.8
United States	9.7	9.8	9.9	10.5	11.1	11.7	12.4

Source: Data for 1870 to 1960 from U.S. Department of Commerce, Historical Statistics Colonial Times to 1970 Part 1, (Wash. D.C.: GPO, 1975), p.22. Data for 1970 and 1980 are from from U.S. Department of Commerce, State and Metropolitan Area Data Book 1986, (Wash. D.C.: GPO, 1986), p.504. 1990 data are projections from U.S. Department of Commerce, press release CB88-48, (March 30. 1988).

Table 2. Black Population Shares by Region and State, 1940 to 1980

	1940	1950	1960	1970	1980	1990
United States	9.8	9.9	10.5	11.1	11.7	12.4
Non-South	3.3	4.6	6.1	7.5	8.3	9.0
Seven States- a	4.8	6.6	8.6	10.8	12.1	13.5
North East	3.8	5.1	6.8	8.9	9.9	11.3
Massachusetts	1.3	1.6	2.2	3.1	3.9	4.8
Connecticut	1.9	2.7	4.2	6.0	7.0	8.2
New York	4.2	6.2	8.4	11.9	13.7	16.1
New Jersey	5.5	6.6	8.5	10.7	12.6	14.4
Pennsylvania	4.7	6.1	7.5	8.6	8.8	9.4
Midwest	3.5	5.0	6.7	8.1	9.1	10.0
Ohio	4.9	6.5	8.1	9.1	10.0	11.0
Indiana	3.6	4.4	5.8	6.9	7.6	8.4
Illinois	4.9	7.4	10.3	12.8	14.7	16.1
Michigan	4.0	6.9	9.2	11.2	12.9	14.6
Missouri	6.4	7.5	9.0	10.3	10.5	10.8
Kansas	3.6	3.8	4.2	4.8	5.3	5.8
West	1.2	2.8	3.9	4.9	5.2	5.6
Colorado	1.1	1.5	2.3	3.0	3.5	3.9
Arizona	3.0	3.5	3.3	3.0	2.8	2.7
Nevada	0.7	2.7	4.7	5.7	6.4	6.9
California	1.8	4.4	5.6	7.0	7.7	8.2
South	23.8	21.7	20.6	19.1	18.6	18.8
Delaware	13.5	13.7	13.6	14.3	16.1	18.9
Maryland	16.6	16.5	16.7	17.8	22.7	26.1
Dist. of Col.	28.2	35.0	53.9	71.1	70.3	68.6
Virginia	24.7	22.1	20.6	18.5	18.9	19.0
West Virginia	6.2	5.7	4.8	3.9	3.3	2.9
North Carolina	27.5	25.8	24.5	22.2	22.4	22.1
South Carolina	42.8	38.8	34.8	30.5	30.4	30.1
Georgia	34.7	30.9	28.5	25.9	26.8	26.9
Florida	27.1	21.8	17.8	15.3	13.8	14.2
Kentucky	7.5	6.9	7.1	7.2	7.1	7.5
Tennessee	17.5	16.1	16.5	15.8	15.8	16.3
Alabama	34.7	32.0	30.0	26.2	25.6	25.6
Mississippi	49.2	45.3	42.0	36.8	35.2	35.6
Arkansas	24.8	22.3	21.8	18.3	16.3	15.9
Louisiana	35.9	32.9	31.9	29.9	29.4	30.6
Oklahoma	7.2	6.5	6.6	6.7	6.8	6.8
Texas	14.1	12.7	12.4	12.5	12.0	11.9

Source: Decennial Censuses, 1940 to 1980, and Census Bureau projections for 1990. Exact sources given in the footnote to Table 1. Data refer to the Black population as a percent of the total resident population.
a- New York, New Jersey, Penn., Ohio, Illinois, Michigan and Missouri.

Table 3. Male Employment and Earnings by Race and Industry, 1940-1980

	White Men 16+					Black Men 16+				
	Employment (thousands)									
	1940	1950	1960	1970	1980	1940	1950	1960	1970	1980
AG	2351	5758	3476	2570	2863	521	891	490	248	175
MINING	944	939	648	602	987	60	48	18	22	39
CON	3066	3408	3980	4391	6173	347	346	388	402	483
DURMFG	4341	6496	8121	8767	10157	277	600	645	816	1006
NDURMFG	3612	4418	4915	4572	4853	186	326	360	449	565
TRANS	2592	3615	3693	3735	5251	194	356	321	399	644
WTRADE	864	1646	1784	2352	3196	39	98	123	158	218
RTRADE	3171	5435	5548	6624	8333	226	398	413	471	607
FINANCE	832	1134	1486	1967	2570	50	67	70	104	177
PROSERV	1051	1896	2900	4512	6798	79	158	239	413	695
OTHSERV	1615	2637	2685	3036	4417	286	369	368	350	455
PUBADMIN	1498	2707	2286	2880	3018	59	225	222	306	386
TOTAL	25935	40089	41522	46009	58616	2324	3881	3657	4138	5451
MMTR	11488	15468	17377	17676	21248	716	1330	1344	1686	2254
WFPS	2747	4676	6170	8832	12564	168	324	433	676	1090
PMMTR	0.443	0.386	0.419	0.384	0.362	0.308	0.343	0.368	0.407	0.413
PWFPS	0.106	0.117	0.149	0.192	0.214	0.072	0.083	0.118	0.163	0.200
	Mean Earnings (1984 dollars)									
	1940	1950	1960	1970	1980	1940	1950	1960	1970	1980
AG	3321	NA	9827	14139	14727	1684	NA	3207	5932	8127
MINING	7572	NA	18126	24563	27998	5561	NA	10936	16211	18283
CON	5926	NA	16686	22870	20549	3472	NA	9073	14050	13250
DURMFG	9573	NA	20365	25146	24809	4830	NA	11817	16387	18219
NDURMFG	9740	NA	19689	24162	24283	4713	NA	10999	14559	15855
TRANS	11372	NA	19506	24648	26068	5568	NA	11856	16184	20013
WTRADE	12148	NA	23126	26804	26741	4609	NA	9721	14650	15535
RTRADE	8827	NA	15536	18216	16510	4149	NA	8165	12335	10770
FINANCE	13951	NA	26508	31329	30688	5502	NA	11076	15251	15814
PROSERV	11336	NA	24541	27541	27518	5532	NA	11359	15667	15216
OTHSERV	8222	NA	15059	19939	18396	3986	NA	7582	11829	11764
PUBADMIN	11427	NA	18869	25441	24539	7911	NA	14754	18708	17486
TOTAL	8934	NA	18498	23429	22991	3931	NA	9515	14473	15432
MMTR	9867	NA	19908	24766	25148	5060	NA	11595	15850	18140
WFPS	12383	NA	24606	28189	27969	5311	NA	10846	15365	15377
	Relative Earnings, Men 16+					Relative Earnings, Men 25+				
	1940	1950	1960	1970	1980	1940	1950	1960	1970	1980
TOTAL	0.440	NA	0.514	0.618	0.671	0.434	NA	0.507	0.598	0.668
MMTR	0.513	NA	0.582	0.640	0.721	0.497	NA	0.573	0.632	0.714
WFPS	0.429	NA	0.441	0.545	0.550	0.418	NA	0.432	0.545	0.573

Source: Tabulations of Decennial Census data from 1940 through 1980. MMTR and WFPS are abbreviations for Mining,Manufacturing and Transportation and Wholesale Trade, Finance and Professional Services respectively.
NA- Data not available.

Table 4. Summary of Male Earnings By Race and Industry, 1940 and 1980

INDUSTRY	Worker Counts (000s)	Employ-ment Shares	Mean Earnings ($1984)	Median Earnings ($1984)	Mean/ Median Ratio	Number with High Earnings (000s)	Shares of High Earners
			White Men 16+ in 1940				
MMTR	11488	0.443	9867	8905	1.108	6352	0.529
WFPS	2746	0.106	12383	9914	1.249	1710	0.143
All Other	11700	0.451	7209	NA	NA	3936	0.328
All Ind.	25935	1.000	8934	7507	1.190	11998	1.000
			White Men 16+ in 1980				
MMTR	21248	0.362	25148	23415	1.074	13005	0.443
WFPS	12564	0.214	27969	21631	1.293	6931	0.236
All Other	24804	0.423	18622	NA	NA	9395	0.320
All Ind.	58616	1.000	22991	20091	1.144	29331	1.000
			Black Men 16+ in 1940				
MMTR	716	0.308	5060	4470	1.132	462	0.436
WFPS	168	0.072	5311	4634	1.146	113	0.107
All Other	1440	0.620	3209	NA	NA	484	0.457
All Ind.	2324	1.000	3931	3100	1.268	1059	1.000
			Black Men 16+ in 1980				
MMTR	2254	0.413	18140	17227	1.053	1408	0.514
WFPS	1090	0.200	15377	13154	1.169	535	0.195
All Other	2107	0.387	12564	NA	NA	795	0.290
All Ind.	5451	1.000	15432	13227	1.167	2740	1.000

Source: Tabulations of Decennial Census data from 1940 and 1980. MMTR and WFPS are abbreviations for Mining, Manufacturing and Transportation and Wholesale Trade, Finance and Professional Services respectively. High earnings: WM-1940=$8000, BM-1940=$3500, WM-1980=$20,000 and BM-1980=$13,000. NA- Data not available.

Table 5. Male Employment by Race, Region and Industry, 1940-1980

	White Men 16+					Black Men 16+				
	1940	1950	1960	1970	1980	1940	1950	1960	1970	1980
INDUSTRY					North East					
MMTR	4222	5198	5216	4757	4920	91	221	269	327	386
WFPS	969	1505	1825	2472	3035	30	66	90	164	248
All Other	3345	4500	4097	4416	4811	165	250	256	322	334
All Ind.	8536	11202	11138	11645	12766	286	536	615	813	968
PMMTR	0.495	0.464	0.468	0.409	0.385	0.319	0.411	0.438	0.403	0.398
Rel.Earnings						0.616	NA	0.651	0.699	0.715
					Midwest					
MMTR	3978	5258	5898	6082	6514	118	336	334	464	556
WFPS	920	1374	1854	2444	3215	29	53	82	127	213
All Other	3821	6057	5573	5667	6293	196	239	276	301	334
All Ind.	8719	12689	13325	14193	16022	343	629	692	892	1104
PMMTR	0.456	0.414	0.443	0.428	0.407	0.344	0.535	0.483	0.520	0.504
Rel.Earnings						0.619	NA	0.690	0.741	0.767
					West					
MMTR	1053	1750	2477	2631	3766	10	49	72	106	181
WFPS	337	734	1035	1643	2682	4	17	25	55	116
All Other	1636	3217	3208	3722	5750	26	101	111	146	215
All Ind.	3026	5700	6720	7997	12198	40	167	208	308	512
PMMTR	0.348	0.307	0.369	0.329	0.309	0.241	0.291	0.347	0.346	0.354
Rel.Earnings						0.643	NA	0.662	0.716	0.737
					South					
MMTR	2236	3272	3786	4206	6048	498	724	669	788	1131
WFPS	520	1065	1456	2273	3632	104	187	236	330	513
All Other	2898	6148	5097	5695	7950	1053	1637	1238	1007	1224
All Ind.	5654	10485	10339	12174	17630	1655	2548	2142	2126	2867
PMMTR	0.396	0.312	0.366	0.345	0.343	0.301	0.284	0.312	0.371	0.394
Rel.Earnings						0.422	NA	0.448	0.546	0.624

Source: Tabulations of Decennial Census data from 1940 through 1980. Employment measured in thousands. MMTR and WFPS are abbreviations for Mining, Manufacturing, and Transportation and Wholsale Trade, Finince and Professional Services respectively. Relative earnings measured at the means of the black and white distributions. NA- Data not available.

Table 6. Total Employment and MMTR Employment in Seven States and the U.S., 1948 - 1987

	Total U.S.		Seven States-a		Rest of U.S.		Emp.	MMTR Emp. Share		
	MMTR	All Ind.	MMTR	All Ind.	MMTR	All Ind.	Share, Seven States	U.S.	Seven States	Rest of U.S.
	(1)	(2)	(3)	(4)	(5)	(6)	(4)/(2) (7)	(1)/(2) (8)	(3)/(4) (9)	(5)/(6) (10)
1948	20.8	38.9	10.4	18.2	10.3	20.7	0.468	0.533	0.572	0.499
1949	19.4	37.5	9.7	17.4	9.7	20.1	0.465	0.517	0.554	0.485
1950	20.2	38.9	10.1	18.0	10.2	20.9	0.463	0.520	0.558	0.487
1951	21.6	41.3	10.6	18.9	11.0	22.3	0.458	0.524	0.563	0.491
1952	21.9	42.0	10.7	19.1	11.2	22.9	0.455	0.521	0.560	0.488
1953	22.7	43.2	11.2	19.7	11.5	23.4	0.457	0.526	0.566	0.492
1954	21.2	41.8	10.3	18.9	10.9	22.9	0.453	0.508	0.543	0.479
1955	21.8	43.1	10.5	19.4	11.3	23.8	0.449	0.506	0.542	0.477
1956	22.3	44.5	10.6	19.8	11.7	24.7	0.445	0.502	0.536	0.474
1957	22.3	44.9	10.5	19.9	11.8	25.0	0.442	0.496	0.528	0.470
1958	20.7	43.4	9.5	18.8	11.2	24.6	0.433	0.478	0.508	0.455
1959	21.4	44.9	9.8	19.3	11.6	25.7	0.429	0.476	0.508	0.453
1960	21.5	45.6	9.8	19.4	11.7	26.1	0.427	0.471	0.504	0.447
1961	20.9	45.2	9.4	19.0	11.5	26.2	0.421	0.462	0.492	0.440
1962	21.4	46.4	9.6	19.4	11.9	27.0	0.418	0.461	0.492	0.439
1963	21.5	47.3	9.6	19.6	12.0	27.7	0.414	0.456	0.489	0.432
1964	21.9	48.5	9.7	20.0	12.2	28.5	0.412	0.451	0.486	0.427
1965	22.8	50.5	10.1	20.8	12.7	29.8	0.411	0.450	0.486	0.426
1966	24.1	53.1	10.6	21.6	13.5	31.4	0.408	0.453	0.488	0.430
1967	24.4	54.4	10.5	22.0	13.8	32.3	0.405	0.448	0.479	0.427
1968	24.8	56.0	10.6	22.5	14.2	33.5	0.401	0.442	0.472	0.423
1969	25.3	58.0	10.7	23.1	14.6	34.9	0.398	0.436	0.466	0.417
1970	24.5	57.9	10.3	22.8	14.2	35.1	0.394	0.424	0.452	0.405
1971	23.7	57.8	9.8	22.4	13.9	35.4	0.388	0.410	0.437	0.392
1972	24.3	60.2	9.9	22.8	14.4	37.3	0.379	0.403	0.432	0.386
1973	25.4	63.4	10.2	23.6	15.2	39.8	0.372	0.401	0.432	0.383
1974	25.5	64.4	10.0	23.6	15.5	40.8	0.366	0.396	0.425	0.379
1975	23.6	62.4	9.1	22.5	14.5	39.9	0.361	0.378	0.405	0.363
1976	24.4	64.7	9.3	23.1	15.1	41.6	0.356	0.377	0.403	0.362
1977	25.2	67.5	9.5	23.7	15.7	43.8	0.351	0.374	0.401	0.359
1978	26.3	71.3	9.7	24.6	16.6	46.7	0.345	0.370	0.397	0.355
1979	27.1	74.1	9.8	25.1	17.3	49.0	0.339	0.366	0.391	0.353
1980	26.5	74.3	9.3	24.7	17.2	49.6	0.332	0.357	0.377	0.348
1981	26.5	75.2	9.1	24.6	17.5	50.5	0.328	0.353	0.369	0.345
1982	25.0	73.8	8.4	24.0	16.6	49.8	0.325	0.339	0.351	0.334
1983	24.4	74.5	8.1	24.0	16.3	50.4	0.323	0.327	0.338	0.323
1984	25.5	78.7	8.5	25.2	17.1	53.6	0.320	0.324	0.336	0.319
1985	25.4	81.1	8.4	25.8	17.0	55.3	0.318	0.314	0.325	0.308
1986	25.0	82.7	8.2	26.3	16.8	56.4	0.318	0.302	0.312	0.298
1987	25.1	84.9	8.1	26.9	16.9	57.9	0.317	0.295	0.302	0.292

Source: U.S. Department of Labor establishment survey data for the private nonfarm economy. Employment measured in millions. MMTR refers to the mining, manufacturing and transportation industries.
a- New York, New Jersey, Penn., Ohio, Michigan, Illinois and Missouri.

Table 7. Time Series Regressions to Explain Employment Shares, 1948 - 1987- a

	Employment Share in Seven States				MMTR Employment Share- U.S.				MMTR Employ. Share-Seven States			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Constant	0.479	0.491	0.482	0.480	0.563	0.568	0.554	0.565	0.608	0.616	0.597	0.696
	(206.9)	(182.3)	(173.5)	(55.1)	(155.2)	(134.7)	(169.0)	(42.9)	(160.0)	(109.6)	(164.4)	(2.5)
Unemployment Rate	-0.116	-0.257	-0.175	-0.056	-0.516	-0.452	-0.393	-0.420	-0.638	-0.600	-0.508	-0.536
	(2.6)	(4.3)	(3.4)	(2.0)	(7.4)	(4.8)	(6.1)	(8.8)	(8.7)	(4.8)	(7.1)	(10.5)
Trend from 1948	-0.0035	-0.0040	-0.0036	-0.0039	-0.0048	-0.0055	-0.0046	-0.0050	-0.0052	-0.0061	-0.0048	-0.0080
	(44.6)	(46.5)	(33.7)	(7.1)	(38.9)	(41.1)	(33.3)	(8.0)	(40.3)	(34.0)	(31.2)	(1.4)
Trend from 1970			-0.0010	-0.0005			-0.0019	-0.0018			-0.0027	-0.0013
			(4.6)	(.6)			(7.1)	(2.1)			(9.3)	(.7)
Real Net Export Share							0.269	0.133			0.373	0.071
							(3.8)	(1.8)			(4.8)	(.9)
Rho 1				1.319				0.813				0.949
				(8.1)				(6.6)				(8.7)
Rho 2				-0.472								
				(2.6)								
Summary Statistics												
Time Period	1948-69	1948-87	1948-87	1950-87	1948-69	1948-87	1948-87	1949-87	1948-69	1948-87	1948-87	1949-87
Adjusted R2	0.989	0.991	0.994	0.998	0.987	0.989	0.996	0.998	0.988	0.984	0.996	0.998
Std. Error	0.0023	0.0047	0.0038	0.0020	0.0037	0.0074	0.0044	0.0031	0.0039	0.0099	0.0049	0.0035
D.W.	0.81	0.53	0.53	1.93	0.61	0.22	0.63	1.50	0.80	0.17	0.79	1.62

a- Coefficients and t ratios appear in the body of the table.

Dependent variables: equations (1) - (4), private nonfarm employment in the seven northern states (New York, New Jersey, Pennsylvania, Ohio, Michigan, Illinois and Missouri) as a proportion of total U.S. employment. Equations (5) - (8), employment in the MMTR (mining, manufacturing and transportion) industries as a proportion of total nonfarm employment. Equations (9) - (12), employment in the MMTR industries of the seven states as a proportion of total employment in those states. Respectively these three dependent variables appear in columns (7), (8) and (9) of Table 6.

Independent variables: Unemployment Rate, the proportional rate for all persons 16 and older; Trend from 1948, =1 in 1948, = 2 in 1949, etc.; Trend from 1970, = 0 before 1970, = 1 in 1970, = 2 in 1971, etc.; Real Net Export Share, = Real exports less real imports measured as a proportion of real GDP; Rho 1, coefficient of first order serial correlation; Rho 2, coefficient of second order serial correlation.

Figure A. Actual and Projected Employment Shares for Seven Large Northern States, 1948 to 1987

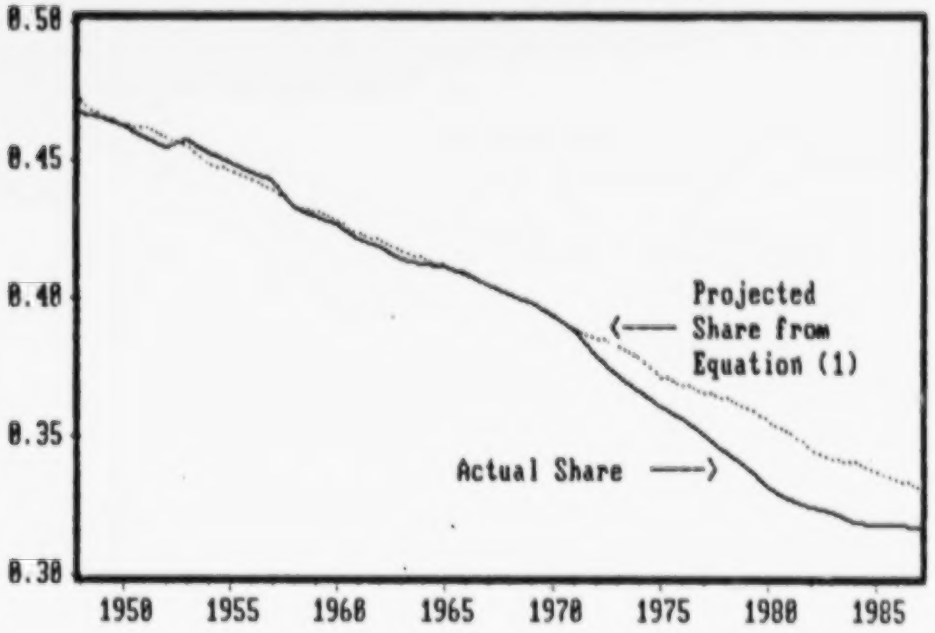

Figure B. Actual and Projected Employment Shares for the MMTR Industries in the U.S., 1948 to 1987

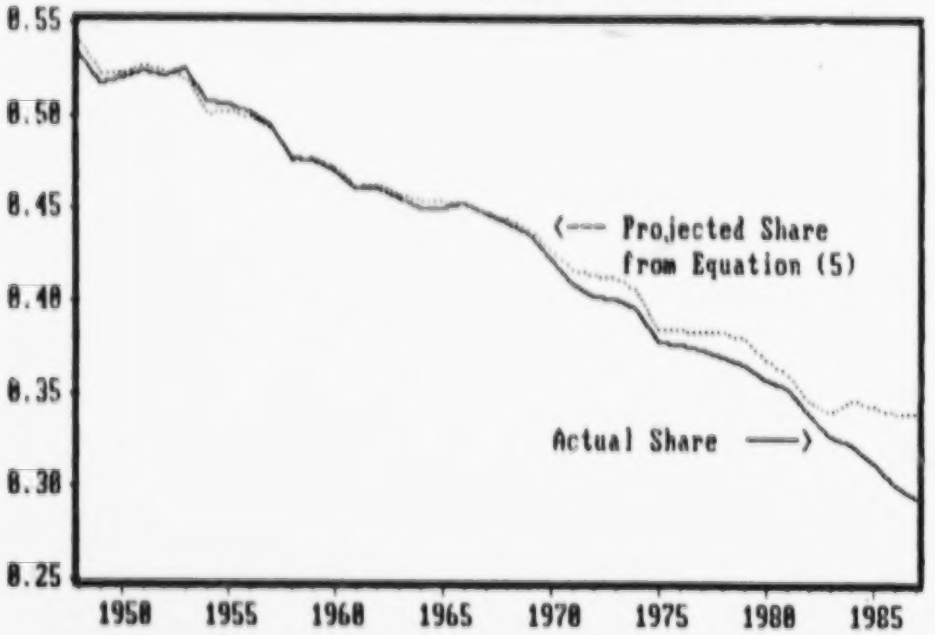

Table 8. Black Men's Relative Earnings, 1954 - 1987

Year	Current Population Survey (CPS) NW/W, Wage and Salary Workers (1)	B/W, All Workers (2)	B/W, All Workers, Con.- a (3)	Social Security Admin. (SSA) B/W, All Workers 16 - 64 (4)	B/W, All Workers (5)	B/W, All Workers, Con.- b (6)
1954	0.568	NA	0.517	NA	NA	NA
1955	0.588	NA	0.537	NA	NA	NA
1956	0.562	NA	0.511	NA	NA	NA
1957	0.554	NA	0.503	0.531	NA	0.531
1958	0.580	NA	0.529	0.501	NA	0.501
1959	0.580	NA	0.529	0.515	NA	0.515
1960	0.599	NA	0.548	0.503	NA	0.503
1961	0.570	NA	0.519	0.495	NA	0.495
1962	0.553	NA	0.502	0.504	NA	0.504
1963	0.568	NA	0.517	0.513	NA	0.513
1964	0.585	NA	0.534	0.528	NA	0.528
1965	0.576	NA	0.525	0.547	NA	0.547
1966	0.594	NA	0.543	0.548	NA	0.548
1967	0.639	0.580	0.580	0.544	NA	0.544
1968	0.664	0.611	0.611	0.566	NA	0.566
1969	0.666	0.608	0.608	0.592	NA	0.592
1970	0.665	0.619	0.619	0.611	NA	0.611
1971	0.673	0.628	0.628	0.612	NA	0.612
1972	0.681	0.649	0.649	0.615	NA	0.615
1973	0.695	0.640	0.640	NA	0.607	0.607
1974	0.709	0.651	0.651	NA	0.616	0.616
1975	0.734	0.665	0.665	NA	0.611	0.611
1976	0.700	0.662	0.662	NA	0.616	0.616
1977	0.705	0.647	0.647	NA	0.611	0.611
1978	0.715	0.632	0.632	NA	0.612	0.612
1979	0.718	0.667	0.667	NA	0.611	0.611
1980	0.702	0.658	0.658	NA	0.609	0.609
1981	0.720	0.676	0.676	NA	0.620	0.620
1982	0.713	0.658	0.658	NA	0.637	0.637
1983	0.724	0.642	0.642	NA	0.632	0.632
1984	0.690	0.629	0.629	NA	0.611	0.611
1985	0.719	0.663	0.663	NA	0.608	0.608
1986	0.720	0.622	0.622	NA	0.602	0.602
1987	0.722	0.626	0.626	NA	NA	NA

Source: Data are from two sources, the Current Population Survey (CPS) conducted by the Census Bureau and the Social Security Administration (SSA). All ratios are ratios of medians. Racial abbreviations are: NW- nonwhite, B- black and W- white.
a- Constructed series; = column (2) from 1967 to 1987, = column (1) less .051 from 1954 to 1966.
b- Constructed series; = column (4) from 1957 to 1972, = column (5) from 1973 to 1986.

Figure C. Measures of Relative Earnings, 1954 to 1987

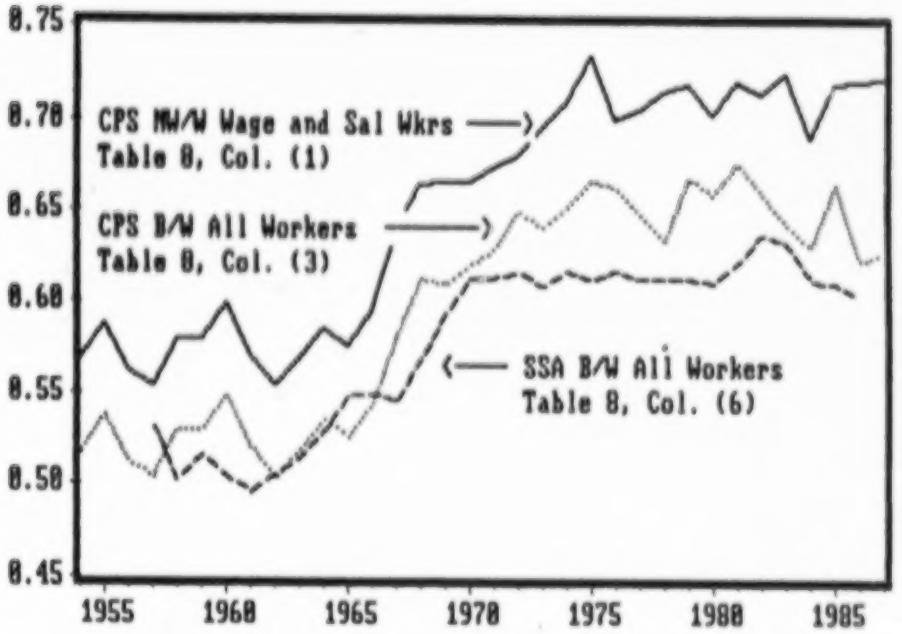

Table 9. Time Series Regressions to Explain Black Men's Relative Earnings- a

	CPS NW/W W&S Workers 1954 - 1987			CPS B/W All Workers 1954 - 1987			SSA B/W All Workers 1957 - 1986			SSA B/W All Workers 1959 - 1986		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Constant	0.071	0.444	0.250	0.306	-0.178	0.116	0.161	-0.123	-0.884	0.050	0.065	-0.468
	(.2)	(1.7)	(.7)	(.8)	(.7)	(.3)	(.7)	(.4)	(2.8)	(.1)	(.2)	(1.0)
Unemployment Rate	0.093	-0.092	0.125	-0.022	0.349	0.256	-0.379	0.179	1.107	-0.287	-0.058	0.511
	(.4)	(.3)	(.3)	(.1)	(1.2)	(.5)	(1.2)	(.6)	(3.1)	(1.3)	(.2)	(1.1)
Trend from 1948	0.0045	0.0019	0.0053	0.0006	0.0067	0.0052	0.0075	0.0069	0.0206	0.0041	0.0049	0.0148
	(1.6)	(.6)	(.9)	(.2)	(2.2)	(.8)	(2.7)	(2.2)	(4.4)	(1.2)	(1.1)	(2.1)
Trend from 1965 to 1974	0.0139	0.0132	0.0133	0.0161	0.0141	0.0155	0.0113	0.0098	0.0108	0.0114	0.0103	0.0110
	(9.2)	(7.9)	(8.4)	(8.9)	(8.0)	(8.5)	(7.6)	(5.9)	(8.4)	(6.0)	(4.7)	(6.3)
EPriv.7States/ EPriv.U.S.	1.018			0.491			1.824			0.991		
	(1.5)			(.6)			(2.9)			(1.4)		
EMTR U.S./ EPriv. U.S.		0.232			1.242			1.123			0.812	
		(.5)			(2.7)			(2.3)			(1.2)	
EMTR 7States/ EPriv. U.S.			1.119			1.480			4.862			3.465
			(.9)			(1.0)			(4.5)			(2.2)
Rho 1										0.897	0.853	0.796
										(4.9)	(4.7)	(4.0)
Rho 2										-0.570	-0.514	-0.470
										(3.0)	(2.6)	(2.3)
Summary Statistics												
Adjusted R2	0.954	0.951	0.952	0.925	0.939	0.926	0.929	0.922	0.948	0.954	0.953	0.959
Std. Error	0.0138	0.0143	0.0142	0.0166	0.0149	0.0164	0.0125	0.0131	0.0107	0.0097	0.0098	0.0091
D.W.	1.87	1.89	1.87	1.54	1.89	1.58	0.91	0.89	1.01	1.99	1.86	2.04

a- Coefficients and t ratios appear in the body of the table.

Dependent variables: Equations (1) - (3), CPS nonwhite/white median earnings ratio for wage and salary workers. Equations (4) - (6), CPS black/white median earnings ratio for all workers with earnings. Equations (7) - (12), SSA black/white median earnings ratio for all workers with covered earnings. Respectively these three dependent variables appear in columns (1), (3) and (6) of Table 8, and they are plotted in Figure C.